Does E-Government Raise Effectiveness and Efficiency?
Examining the Cross-National Effect

Taewoo Nam, Graduate School of Governance, Sungkyunkwan University, Seoul, Republic of Korea

ABSTRACT

This article examines the influence of e-government maturity on government effectiveness and efficiency with a cross-country view. To that end, it uses two-stage least square regression, considering the endogeneity of e-government. The regression-based analysis on various global indicators finds that e-government significantly contributes to enhancing government effectiveness but fails to substantially raise government efficiency. Political, economic, and cultural disparities across countries affect the variation in the impact of e-government on government effectiveness and efficiency. The level of democracy has a curvilinear relationship with government efficiency, and thus this study identifies non-democracies with well-performing governments.

KEYWORDS
Cross-National Study, E-Government, Government Effectiveness, Government Efficiency

INTRODUCTION

The commonly-used definition of e-government connotes its expected effects. E-government refers to “the use of information and communication technology and its application by the government for the provision of information and basic public services to the people,” and its four goals, among others, are of vital importance and of relevance: “efficient government management of information to the citizens”; “better service delivery to citizens”; “improved access and outreach of information”; and “empowerment of the people through participatory decision making” (United Nations, 2004: 15). Therefore, e-government has been considered a key driver to boost government effectiveness and efficiency.

Nevertheless, little research has shed light on the global impact of e-government on effectiveness and efficiency. An array of empirical studies has investigated whether e-government leads to its promised results, but the studies have rarely paid close attention to its performance in terms of effectiveness and efficiency with a cross-national view. Motivated by this paucity in the relevant research, this study raises a research question—“Does e-government maturity contribute to increasing the level of government effectiveness and efficiency across countries?”—and, to answer the question, examines the extent to which countries actualize what e-government promises for greater effectiveness and efficiency. To that end, the study employs diverse global-scale indicators.

DOI: 10.4018/JGIM.2019070107

Copyright © 2019, IGI Global. Copying or distributing in print or electronic forms without written permission of IGI Global is prohibited.
This article is structured into six sections, including the foregoing introduction. The second section discusses theoretical underpinnings and empirical evidence. The third section describes the data, measures, and empirical strategy. The fourth section reports the results of the analysis in detail, and then the fifth section addresses the theoretical implications, practical suggestions, and research limitations for further discussion. The final section concludes this article.

GOVERNMENT EFFECTIVENESS AND EFFICIENCY

Conceptualization

A good government means a quality government or better performing government. The quality of government and government performance are understood through various attributes such as effectiveness and efficiency (La Porta et al., 1999), impartiality and lack of corruption (Rothstein, 2011; Rothstein & Teorell, 2008; Wilson, 2008), financial performance (Knack, 2002; Rayp & Van De Sijpe, 2007), and democracy and accountability (Adserà, Boix, & Payne, 2003). Effectiveness and efficiency are central to a good government, but historically a government has had a bad reputation as an inefficient producer (Carrick, 1988; Marshall, 1998).

The academic understandings of effectiveness and efficiency are basically no different from their lexicographic definitions. While the Merriam-Webster Dictionary defines efficient as “productive without waste” and effective as “producing a decided, decisive, or desired effect,” the Oxford Dictionary defines them as “achieving maximum productivity with minimum wasted effort or expense” and “successful in producing a desired or intended result,” respectively. In a similar vein, Barnard (1938) claimed, as a classical view on government effectiveness, that an organizational action would be effective if “a specific desired end is attained” (p. 19). Addressing government effectiveness and efficiency in academic research unavoidably involves how to accurately measure the terms in practice rather than how to refine the theoretical conceptualization beyond the common definition in dictionaries. In that sense, what Osborne and Gaebler (1992) wrote is notable:

Efficiency is a measure of how much each unit of output costs. Effectiveness is a measure of the quality of that output: how well did it achieve the desired outcome? (p. 351)

While measuring efficiency is related to how much it costs a government to achieve a specific output, measuring effectiveness is related to whether the government’s investment is worthwhile. While efficiency implies “doing things right” and “doing better what is already being done,” effectiveness implies “doing the right thing” and “deciding what to do better” (Drucker, 1974, 1999; Drucker & Wilson, 2001).

For government efficiency, most studies consider inputs (government expenditure) and outputs (public goods) chiefly in the aspect of financial management, economic performance, and expenditure efficiency (Afonso, Schuknecht, & Tanzi, 2005; Geys, 2006; Gupta & Verhoeven, 2001; Hauner & Kyobe, 2010; Rayp & Van De Sijpe, 2007; Tanzi & Schuknecht, 1997, 2000). Government expenditure as input is a readily available proxy of government size (Wu & Lin, 2012). Main outputs include health (e.g., infant mortality and immunization) and education (e.g., youth illiteracy and school enrollment).

Government effectiveness is more difficult to measure than government efficiency because the former is a matter of quality. Government effectiveness as a subindicator of the World Governance Indicators has been popularly used (Magalhães, 2014). The indicator defines government effectiveness as “perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government’s commitment to such policies” (Kauffman, Kraay, & Mastruzzi, 2010: 4). With a more concrete view, Rainey and Steinbauer (1999) thought they could measure government effectiveness as the answer to whether a government does what it is supposed to do